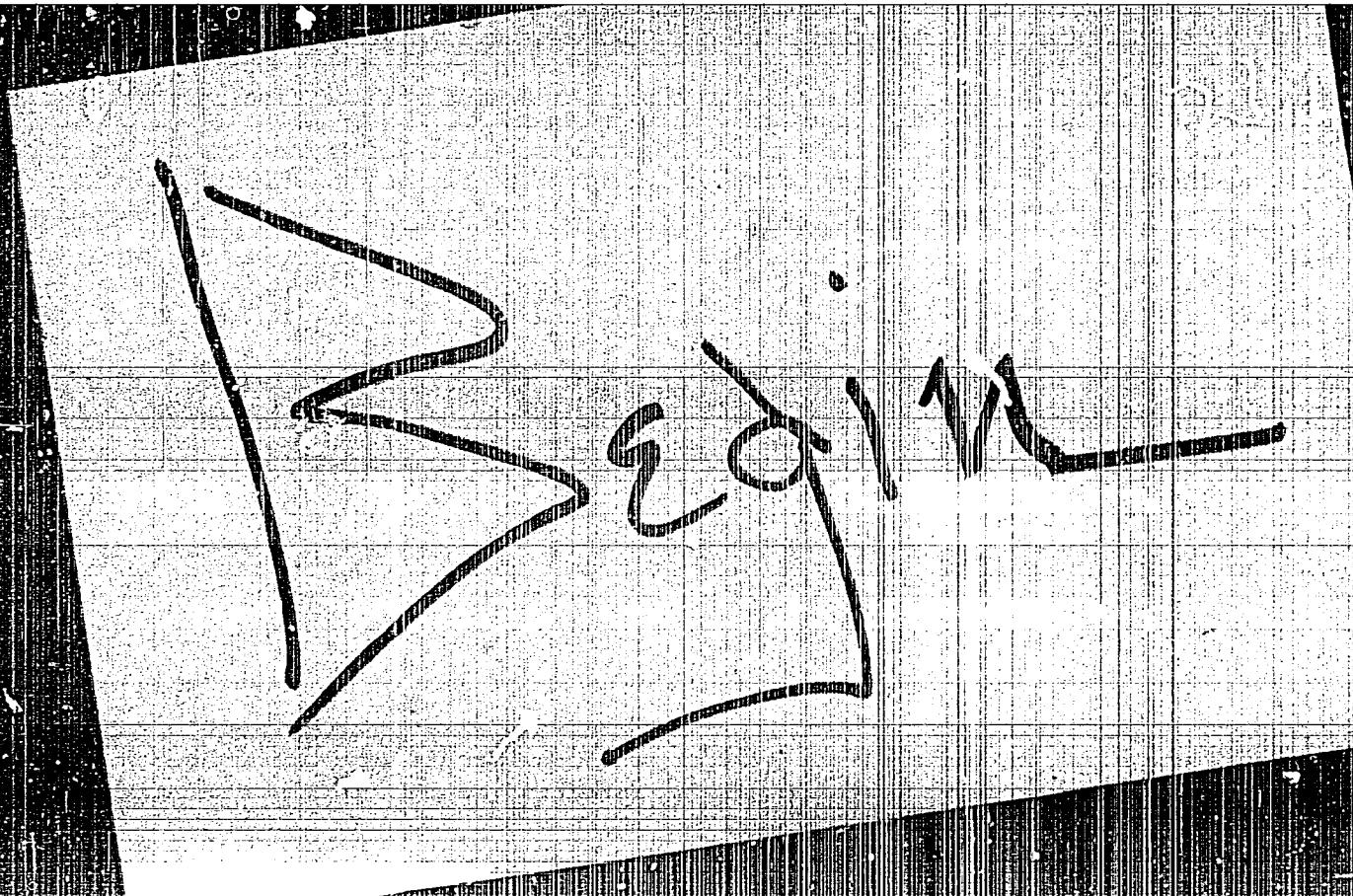


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APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R002065010001-6"

Reel # 806

Zhukovka, G. A.

ZHUKOVA, A.A., kand. med. nauk (Moskva); GUREVICH, Yu.Ya. (Moskva);
FENENKO, N.F. (Zhdanov, Donetskaya oblast', UkrSSR); GINEVSKIY,
Ya.M. (Moskva); GAGINA, T.N. (Alma-Ata); VERESHCHAGIN, N.K.,
prof. (Leningrad); ABRAMOV, L.S.; SERGEYEV, A.S. (Moskva).

New books. Priroda 54 no.8:19, 35, 70, 102, 122-125 - Ag '65.
(MIRA 18:8)

1. Institut geografii AN SSSR, Moskva (for Abramov).

ZHUKOVA, A.A.

Comparative study of lipids and lipoproteins in the blood serum in lipid nephrotic syndrome and atherosclerosis. (MIRA 16:10)
Terap. arkh. 35 no.2:70-77'63.

1. Iz Instituta terapii (dir. - deystvital'nyy chlen AMN
SSSR prof. A.L.Myasnikov) AMN SSSR.
(KIDNEYS—DISEASES) (ARTERIOSCLEROSIS)
(HIPOPROTEINS) (LIPIDS)

YURKOVSKIY, A.M.; RAVKINA, L.I.; ZHUKOVA, A.A.

Problem of the allergic nature of paralysis appearing after the administration of rabies vaccine. Zhur.nevr.i psikh. 61 no.3: 374-381 '61. (MIRA 14:7)

1. Gosudarstvennyy kontrol'nyy institut meditsinskikh i biologicheskikh preparatov imeni Tarasevicha i Institut poliomyelitii AMN SSSR, Moskva.

(RABIES) (PARALYSIS)

LIVSHITS, M.L.; ZHUKOVA, A.D.; VASYUKOVA, A.N.

Standards and specifications. Lakokras. mat. i ikh prim. no.5:
71-81 '63. (MIRA 16:11)

ZHUKOVA, A.D.; IVONIN, V.I.; KAPLAN, A.Yu.; REMIROVSKAYA, Ye.G.; MIRENSKIY, B.R., redaktor; AYZENSHTAT, I.I., redaktor; ZALYSHKINA, O.Ya., tekhnicheskiy redaktor.

[Collection of standards and technical requirements for the varnish and paint industry] Sbornik standartov i tekhnicheskikh uslovii na produktsiiu lakokrasochnoi promyshlennosti. Moskva, Gos. nauchno-tekhn. izd-vo khim. lit-ry. No. 1. 1952, 516 p; No.2. 1952, 359 p; No.3. 1952. 463 p. (MIRA 8:4)

(Varnish and varnishing—Specifications)
(Paint—Specifications)(Lacquer and lacquering—Specifications)

ZHUKOVA, A.D.; IVONIN, V.I. [deceased]; AYZENSHTAT, I.I., red.; ZAZUL'SKAYA, V.F., tekhn.req.

[Collection of standards and technical specifications for production in the paint industry] Sbornik standartov i tekhnicheskikh usloviy na produktsii lakokrasochnoi promyshlennosti. Moskva, Gos. nauchno-tekhn. izd-vo khim. lit-ry. No.4. 1959. 451 p. No.5. 1959. 499 p. (MIRA 13:6)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye lakokrasochnoy promyshlennosti.

(Paint industry--Standards)

VASYUKOVA, A.N.; DUBOVSKAYA, Z.A.; ZHUKOVA, A.D., otd. red.;
URYVALOVA, N.I., red.

[Technical specifications for paint materials in two
volumes] Tekhnicheskie usloviia na lakokrasochnye ma-
terialy [v dvukh tomakh]. Moskva, Khimiia, 1965. 2 v.
(MIRA 18:12)

ZHUKOVA, A.F., Cand Tech Sci--(diss) "Study and development of the technological process of welding up miniature electron~~o~~^u tubes" ~~temp~~¹⁹⁵⁸ Mos, 1958. 17 pp (State Committee of the Council of Ministers USSR on Radioelectronics. State ^{USSR} ~~USSR~~ Sci Res Inst), 120 copies (KL,25-58, 112)

- 88 -

ZHUKOVA, A. I.

MANTEIFEL', A. Ya., ZHUKOVA, A. I., DEM'YANOVA, E. K.

Study of the microflora of the rhizosphere of the oak. Mikrobiologiya, Moscow 1956, Nov.-Dec. 50. p. 547-56

1. Botanical Institute, Moscow State University imeni. Lomonosov.

CLML 20, 3, March 1951

ZHELEV, A. I.

"Microorganisms in the Soil of the Northern Caspian and Their Role in the Nutrition of Certain Benthic Invertebrate Animals." Cand. Biol. Sci., Moscow Order of Lenin State University imeni M. V. Lomonosov, 19 Feb 54. Dissertation (Vechernaya Moscow, Moscow, 9 Mar 54).
SO: SUM 186, 19 Aug 1954

ZHUKOVA, A.I.

Role of microorganisms in the nutrition of *Nereis succinea* in
the Caspian Sea. *Mikrobiologiya* 23 no.1:46-48 Ja-F '54.

(MLRA 7:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo
rybnogo khozyaystva i okeanografii, Moscow.
(Caspian Sea--Marine biology) (Marine biology--Caspian Sea)
(Caspian Sea--Polychaeta) (Polychaeta--Caspian Sea)

ZHUKOVA, A.I.

Total quantity of microorganisms from the bottom sediment of the
north Caspian Sea. Mikrobiologiya 24 no.321-324 My-Je '55.

1. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo rybnogo
khozyaistva i okeanografii, Moskva.
(CASPIAN SEA--BACTERIA) (MLRA 8:7)

Zhukova, A. I.
ZHUKOVA, A.I.

Significance of micro-organisms for the food supply of fishes. Vop.
ikht. no.9:152-168 '57.
(MIRA 11:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo rybnogo
khozyaistva i okeanografii - VNIRO.
(Caspian Sea--Marine biology) (Fishes--Food) (Bacteria)

BORODATOV, V.A., kand.biolog.nauk; DEMIDOV, V.F.; DUKHANIN, A.N.; ZHUKOVA, A.I.; KADIL'NIKOV, Yu.V.; KARPECHENKO, Yu.L.; KORZHOOVA, Yu.A.; MAKHOVICH, Z.I.; PETROV, G.P.; PROSVIROV, Ye.S.; RULEV, N.N.; SOKOLOV, O.A.; SPICHAK, M.K.; KHROMOV, N.S.; SHUIN, V.I., red.; FORMALINA, Ye.A., tekhn.red.

[Study of tuna fish and sardines in the eastern part of the Atlantic Ocean; report on the cruise of the scientific fishery survey expedition of 1957] Issledovaniia tunsa i sardiny v vostochnoi chasti Atlanticheskogo okeana; reisovyi otchet nauchno-poiskovoi ekspeditsii, 1957 g. Moskva, 1959. 158 p. (MIRA 13:6)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo rybnogo khozyaystva i okeanografii.
(Atlantic Ocean--Tuna fish) (Atlantic Ocean--Sardines)
(Fish, Canned)

ZHUKOVA, A.I.

Distribution and biomass of micro-organisms in the Sea of Azov.
Mikrobiologiya 28 no.3:407-412 My-Je '59. (MIRA 13:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo rybnogo
khozyaystva i okeanografii, Moskva.

(MICROORGANISMS

in Azov Sea, distribution & biomass (Rus))

ZHUKOVA, A. I.

Distribution and biomass of micro-organisms in bottom silts of the
Sea of Azov. Mikrobiologija 28 no.4: 581-585 Jl-1g '59.

1. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo rybnogo
khozyaystva i okeanografii, Moskva.
(AZOV, SEA OF--BACTERIA) (MIRA 12:12)

ZHUKOVA, A.I.

Role of micro-organisms in the productivity of the Sea of Azov.
Trudy Okean kom. 10 no.4,17-22 '60. (MIRA 14:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo
rybnogo khozyaystva i okeanografii.
(Azov, Sea of---Marine microbiology)

ZHUKOVA, A.I.

To be submitted for the International Seminar on Marine Microbiology, Odessa, 1972.

1. Presentations to the program in a list of titles and authors or paper submit-

ters

1. **ZHUKOVA, A.I.**, Institute of Microbiology, Academy of Sciences, USSR, "Mycobacteria of marine bacterioplankton" (Section V).

2. **ZHUKOVA, A.I.**, Institute of Microbiology, Academy of Sciences, USSR, "The role of microorganisms in the genesis and weathering of sulfur deposits" (Section VI).

3. **ZHUKOVA, A.I.**, Institute of Microbiology, Academy of Sciences, USSR, "Sulfate-reducing bacteria of the Mediterranean basin" (Section VI) (to be presented by N. N. ZINOV'EV).

4. **ZHUKOVA, A.I.**, Sevastopol Scientific Station - "The division rates of plankton algae in the Black Sea in culture" (Section VI).

5. **ZHUKOVA, A.I.**, Sevastopol Biological Station - "Bacterioplankton and ecology of microorganisms in the Black Sea" (Section VI).

6. **ZHUKOVA, A.I.**, Central Research Institute, All-Union Institute of Marine Fishing and Oceanography, Moscow - "Chemotaxative roles of bacteria in the assimilation of marine lipopolysaccharides" (Section VI).

7. **ZHUKOVA, A.I.**, and **ZINOV'EV, N. N.**, Central Research Institute of Oceanography, Moscow - "Role of microorganisms of the upper sediment layer of a saline water basin in the decomposition of organic substances" (Section VI) (to be presented by A. I. ZINOV'EV).

ZHUKOVA, A.I.; FEDOSOV, M.V.

Role of microorganisms in the upper layer of bottom sediments of a shallow sea in the transformation of organic matter. Okeanologija 1 no.3:450-455 '61. (NIRA 16:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo rybno-go khozyaystva i okeanografii.

ZHUKOVA, A.I.

Functional evolution of organisms (USSR)

Report to be submitted for the 4th International Space symposium (COSPAR)
Warsaw, 2-12 June 63 *(on terrestrial life in space)*

ACC-NR: AP6019782

SOURCE CODE: UR/0220/66/035/003/0503/0508

AUTHOR: Zhukova, A. I.; Kozlova, V. Kh,

ORG: Institute of Microbiology, AN SSSR, Moscow (Institut mikrobiologii AN SSSR)

TITLE: Viability of microorganisms in the desert soil of Turkmenia

SOURCE: Mikrobiologiya, v. 35, no. 3, 1966, 503-508

TOPIC TAGS: microbiology, soil microbiology, bacteria fungi, microbe viability, soil bacteriology

ABSTRACT:

The study of the viability of microbes in Turkmenian soil is part of an effort to establish values for critical conditions for microbial life. Conditions are extreme in the Turkmenian desert and the authors compare it to theoretical conditions on Mars but note that the temperature variation, of course, is not as great on Earth as on Mars, where the daily variation exceeds 100°C. General conclusions reached were that active microorganisms are found in the upper layers of soils where nitrogen content is 1.1% and water content is 0.1—2.7%. Microbes also

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UDC: 576.095.15/16 : 631.46

ACC-NR: AP6019782

withstood extreme temperature variation well. Soil humidity is the most important limiting factor for bacterial growth and its critical level is between 1 and 5%. [WA-50; CBE No. 11]

SUB CODE: 06/ SUBM DATE: 12Apr65/ ORIG REF: 005/ OTH REF: 001

Card 2/2

Oscillographic study of the cathode potential during growth of a uniform silver crystal. K. M. Gorbunova and A. I. Zhukova. *Zhur. Fiz. Khim.* (J. Phys. Chem.) 22, 1007-9 (1948).—Ag filaments, 5-8 μ thick, were grown in N to $3 N$ $AgNO_3$ solns. contg. 0.02-0.2 g. of gelatin per l.; the rate of growth was varied between 50 and 200μ min.⁻¹ and the current strength I between 10^{-3} and 30×10^{-3} amp. When the e.m.f. E between the growing Ag cathode and a reference electrode was detd. with an oscillograph at a const. I , E showed regular oscillations with period τ ranging from 0.1 to 0.8 sec. They are attributed to concn. changes at the cathode (cf. *C. A.* 40, 4400). Some supersatn. is required before a new layer of Ag is deposited on the basic face of the filament; immediately after the deposition the supersatn. is zero and gradually increases during τ . The thickness of the layer deposited during each period varied between 0.4 and 2 μ .
J. J. Bikerman

Lab. Structure Surface Layers,
Inst. Phys. Chem., A.S. USSR

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ZHUKOVA, A. I.

USSR/Physics
Catalysis

May 49

Filaments, Silver

"CRYSTALLIZATION MECHANISMS OF THIN SILVER FILAMENTS," K. M. Gorbunova, A. I. Zhukova, Inst. of Phys. Chem. Acad. Sci. USSR, Lab. of Structure of Surface Films, Moscow, 10 1/2 pp

"Zhur. Fiz. Khim." Vol. XXIII, No. 5

Determines increase in rate of elongation of thread-like crystals of silver during a decrease in the current of the cell to as much as 2.5 times. Considerable increase of I/S (I-current, S-filament section) is not

58/49T37

USSR/Physics (Contd)

May 49

accompañado by a similar increase in the potential of the cathode. Observed relationship of the disturbance in uniformity of I/S with light currents, their concentrations, and active impurities, their concentrations, and the concentration of $AgNO_3$ is studied. A new form of crystalline filament with depressed crystalline characteristics is also studied, as well as high and low ranges of regular crystalization and their relation to the conditions of electrolysis. Includes pictures. Submitted 21 Jul 48.

58/49T37

GENES, S.G.; ZHUKOVA, A.I.; KALMYKOVA, K.M.; RODKINA, B.S.

Role of insufficiency of the insular apparatus of the pancreas
in a change in blood pressure level. Trudy Ukr.nauch.-issl.inst.
eksper.endok. 18:181-186 '61. (MIRA 16:1)

1. Iz otdela patofiziologii Ukrainskogo instituta eksperimental'-
noy endokrinologii i Ukrainskogo instituta usovershenstvovaniy
vrachey.

(PANCREAS) (BLOOD PRESSURE)

ZHUKOVA, A.I.

Method of microbiological air research. Mikrobiologija 31 no.4:
745-757 Jul-Ag '62. (MIRA 18:3)

ZHUKOVA, A.I.

Micro-organisms of the upper layers of the atmosphere.
Mikrobiologija 32 no.2:362-370 Mr.-Ap '63. (MIRA 17:9)

ZHUKOVA, A. I.; KONDRATYEV, I. I.;

"On artificial Martian conditions reproduced for microbiological research." (USSR)

Report submitted for the COSPAR Fifth International Space Science Symposium, Florence, Italy
8-20 May 1964.

L 39710-65

ACQUISITION NO. 1000-1000-0000

Topographic and Geologic Map

FIGURE 5. Spectra of the 1000 nm emission of the 900 nm laser beam at 684 nm.

SOURCE: *Microfiche* no. 7, 31, no. 6 (1960) 1222-1226

TOPIC TAGS: microorganism contamination, plant parasite, entomology

ABSTRACT. The microflora of the air in Moscow was investigated by examining cultures obtained by filtering 50 liters of air through a sand filter.

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L 39710-65

ACCESSION NR: AP5011728

where there is a lot of greenery and sanitary conditions are good. spores of Penicillium fungi are mainly found (31.0%). The percentage of Penicillium fungi was at a maximum in the navigation, which is in the tropics.

ASSOCIATION: Institut für sozialen Aufbau (Institute of Social Planning, in English)

2000 JOURNAL OF CLIMATE

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Card 2/2 743

¹⁰ See, for example, the discussion of the 1970s in the introduction to *Contested Terrain: The Politics of Nature in the Cold War* (1997).

1993-1994 1994-1995 1995-1996 1996-1997

AUTHOR: Zhukova, A. I.; Kondrat'yev, I. I.

TITLE: A chamber simulating Martian conditions for microbiological experiments

¹⁰ See also the discussion of the 'right to be forgotten' in the European Union's General Data Protection Regulation (GDPR), Article 17(1).

TOPIC TAGS: bacteria, fungi, exotoxicology, Mars, environment & evolution, Mars chamber, microbiology

L 38471-65
ACCESSION NR: AP5009692

environment, possibly due to the fact that the pigment protected them from the harmful effects of UV rays. The spores of mold fungi were more resistant to a Mars environment than microbe spores. Not all the terrestrial forms of micro-organisms were able to maintain their viability under simulated Mars-like conditions. (fig. 42) (see figures and a table)

(CD)

ASSOCIATION: none

SUBMITTED: 04May64

ENCL: 02

END CC DATE: 16

NO REF Sov: 000

OTHER: 006

ITEM PRESS: 3223

Card 2/4

ABOLINA, A.Ye.; ZHUKOVA, A.M.

Use of exercise therapy during the postoperative period following
the removal of the lacerated meniscus of the knee joint. Vop.
kur., fizioter. i lech. fiz. kul't. 30 no.1:21-22 Ja.-F '65.

1. Ortopedicheskoye otdeleniya kafedry gospital'noy khirurgii
(zav.- prof. A.M. Aminev) Kuybyshevskogo meditsinskogo instituta.
(MIRA 18:8)

ABOLINA, A. Ye., kand. med. nauk; ZHUKOVA, A. M.

Conservative treatment of congenital clubfoot in children. Ortop., travm. i protez. 22 nn. 8:31-33 (MIR 14:12)

1. Iz ortopedicheskogo otdeleniya (zav. - prof. A. P. Yevstropov) kafedry gospital'noy khirurgii (zav. - prof. A. M. Aminev) Kuybyshevskogo meditsinskogo instituta.

(FOOT—ABNORMALITIES AND DEFORMITIES)

ZHUKOVA, A. N.

PA 5/49T11

USSR/Chemistry - Rubber, Determination in [redacted] Jan 48
Plants

Chemistry - Rubber, Extraction

"Alkali Method of Determining Presence of Caoutchouc
in Plants," O. Yu. Sobolevskaya, Cand Biol Sci, A. N.
Zhukova, Sci Res Inst of Rubber Plants, 4 pp

"Dok v-s Ak Selkhoz Nauk" No 1

Cites disadvantages of existing method of extraction
with organic solvents. It has been largely super-
seded by described alkali method in USSR. Tables
compare results of two methods applied to saghyz
plants. Submitted 13 Sep 47.

5/49T11

KOROVAYEV, Ye.N., prof.; ZHUKOVA, A.N.

Cantharides test in rheumatic fever in children. Naz.med.zhur. no.5:
16-19 S-0 '60. (MIRA 13:11)

1. Iz kafedry gospital'noy pediatrii (zav. - prof. Ye.N.Korovayev)
Kazanskogo meditsinskogo instituta i detskogo otdeleniya Respubli-
kanskoy klinicheskoy bol'nitsy (glavvrach - Sh.V.Eikchurin).
(RHEUMATIC FEVER)
(CANTHARIDES)

ZHUKOVA, A. N.

The Second All-Union Conference on the Preparation and Analysis of High-Purity Elements, held on 24-28 December 1963 at Gorky State University im. N. I. Lobachevskiy, was sponsored by the Institute of Chemistry of the Gorky State University, the Physicochemical and Technological Department for Inorganic Materials of the Academy of Sciences USSR, and the Gorky Section of the All-Union Chemical Society im. D. I. Mendeleyev. The opening address was made by Academician N. M. Zhavoronkov. Some 90 papers were presented, among them the following:

O. P. Malkova, A. N. Zhukova, and N. K. Rudnevskiy. Spectrochemical determination of 6 elements in Ge thin films with a reported sensitivity of 10^{-9} to 10^{-7} g..

(Zhur. ANAL. khim. 19 No. 6, 1964 p.777-79)

L 25785-65 EWT (1) / EWT (m) / T / EWP (t) / EEC (b) -2 / EWP (b) IJP (c) 100 / 100

1. *What is the relationship between the two variables?*

1970-1971. The 1970-1971 school year began on September 1, 1970.

TITLE: A spectrochemical method for the determination of boron in germanium and germanium films

CITED SOURCE: Tr. po khimii i khim. tekhnol. (Gor'kiy), vol. 1, 1963, 181

TOPIC TAGS: boron determination, boron spectrum, spectrophotometry, germanium analysis, germanium filaments

TRANSLATION: A 10 mg sample, with or without a sublayer, was heated at 190°C in the presence of 6 mg tannic acid for 1 hr at a temperature of 160°C in air. After

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ACCESSION NR: AR4040348

sensitivity of the analysis was 4×10^{-8} g and the mean error was 20%.

Cara

ACCESSION NR: AP4010506

S/0075/64/019/003/0312/0315

AUTHOR: Malkova, O. P.; Zhukova, A. N.; Rudnevskiy, N. K.

TITLE: A chemical spectrographic method for determining indium, gallium, bismuth, antimony, arsenic in germanium films

SOURCE: Zhurnal analiticheskoy khimii, v. 19, no. 3, 1964, 312-315

TOPIC TAGS: spectrographic analysis, chemical-spectrographic analysis, indium, gallium, bismuth, antimony, arsenic, germanium, quantitative analysis

ABSTRACT: A method was developed for determining In, Ga, Bi, Sb, and As impurities in germanium films spray-coated on a glass plate. The impurities are first extracted from the germanium into carbon powder of spectral purity; the germanium is distilled off as the tetrachloride. The spectrographic analysis is carried out in a d.c. arc, using synthetic standards on a carbon powder base with impurity elements added. The absolute sensitivity of a determination is

Card 1/2

ACCESSION NR: AP4019506

from 5×10^{-7} for As to 5×10^{-9} for Ga and In. The accuracy of the method is $\pm 15\%$. Orig. art. has: 2 figures and 2 tables.

ASSOCIATION: Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete im. N. I. Lobachevskogo (Scientific Research Institute of Chemistry of Gor'ky State University)

SUBMITTED: 23May63 DATE ACQ: 31Mar64 ENCL:00

SUB CODE: CH NO REF SOV: 004 OTHER: 003

Card 2/2

MAIKOVA, C.P.; ZHUKOVA, A.N.; RUDNEVSKIY, N.K.

Chemical-spectral method for determining indium, gallium,
bismuth, antimony, arsenic in germanium films. Zhur. anal.
khim. 19 no.3:312-315 '64. (MIRA 17:9)

SUDOPLATOV, A.P., doktor tekhn. nauk, prof., red.; YEROFEEV, V.F.,
otv. red.; VESKOV, M.I., otv. red.; ARKHIPOV, N.A., red.;
ZHUKOVA, A.P., red.; RYKOVA, Z.L., red.; CHIZHOVA, V.V.,
red.; KUFTSOVA, Ye.M., red.; LEVINA, T.I., red.

[Coal mining without the constant presence of miners at
the working faces; materials] Razrabotka ugol'nykh plastov
bez postoiannogo nakhozhdeniya rabochikh v zabe; materialy.
Pod red. A.F. Sudoplatova. Moskva, Tsentral. inst. tekhn.
informatsii ugol'noi promyshl., 1960. 251 p.

(MIRA 18:8)

1. Nauchno-metodicheskoye soveshchaniye po izyskaniyu sistem
razrabotki bez postoyannogo nakhozhdeniya rabochikh v zabe, Moscow,
1960. 2. Tsentral'nyy institut tekhnicheskoy informatsii ugol'noy promyshlennosti (for Kuptsova, Levina, Arkhipov,
Zhukova, Rykova, Chizhova).

PETRENKO, P.V.; EL'KIN, I.L.; KAZAKOV, S.S.; VOZHIK, D.L.; DENISOV, V.V.; PUCHKOV, V.I.; BOGUTSKIY, N.V.; SAVEL'YEV, I.P.; KOLENTSEV, M.T.; MERKULOV, N.Ya.; VERKLOV, V.A.; OVSYANNIKOV, P.A.; SOSNOV, V.D., otv. red.; CHIZHOVA, V.V., otv.red.; ZHUKOVA, A.P., red.; LEVINA, T.I., red.; PRONINA, N.D., tekhn. red.; OVSEYENKO, V.G., tekhn. red.

[Practice of using cutterloaders] Opyt ispol'zovaniia ochistnykh kombainov; sbornik statei. Moskva, 1962. 102 p.
(MIRA 16:2)

1. TSentral'nyy institut tekhnicheskoy informatsii ugol'noy promyshlennosti.

(Coal mining machinery)

ZHUKOVA, A.P., rukovoditel'; POPOV, I.A., rukovoditel'; RYKOVA, Z.L., rukovoditel'; ARKHIPOV, N.A., starshiy nauchnyy sotrudnik; DZHIMSHELEYSHVILI, Sh.P., starshiy nauchnyy sotrudnik; DMITRIYEV, G.V., starshiy nauchnyy sotrudnik; ZHURAVKOV, M.V., starshiy nauchnyy sotrudnik; ISTOMIN, P.S., starshiy nauchnyy sotrudnik; KURBATOV, A.K., starshiy nauchnyy sotrudnik; METLINA, T.I., starshiy nauchnyy sotrudnik; PUGINA, N.I., starshiy nauchnyy sotrudnik; BOYKOV, M.A., otvetstvennyy red.; BEL'KE, G.V., otvetstvennyy red.; KLEYMENOV, F.N., otvetstvennyy red.; SMOLDYREV, A.Ye., otvetstvennyy red.; SHARATEV, A.N., otvetstvennyy red.; BUTAZOV, V.V., tekhn.red.; SABBITOV, A., tekhn.red.

[Progressive practices and new equipment] Perekovoi opyt i novaya tekhnika. Moskva, Ugletekhnizdat, 1957. 386 p. (MIRA 11:4)

1. Russia (1923- U.S.S.R.) Ministerstvo ugol'noy promyshlennosti. TSentral'nyy institut tekhnicheskoy informatsii. 2. TSentral'nyy institut tekhnicheskoy informatsii Ministerstva ugol'noy promyshlennosti SSSR (for Zhukova, Popov, Rykova, Arkhipov, Dzhimsheleyshvili, Dmitriyev, Zhurakov, Istomin Kurbatov, Metlina, Pugina)
(Coal mines and mining)

ZHUKOVA, A. P. Cand Agr Sci -- (diss) "Start ^{1/1} Generation of the flower buds ~~and~~ apple trees in connection with the periodicity of their fruit bearing." Tashkent, 1959. 20 pp (Uzbek Acad Agr Sci. Tashkent Agr Inst), 150 copies (KL, 52-59, 123)

ZHUKOVA, A.S.

Geochemistry of germanium. Trudy Inst. min., geokhim. i kristalloghim.
red. elem. no. 3:26-43 '59. (MIRA 14:5)
(Germanium)

ZHUKOVA, A. S.

31

PHASE I BOOK EXPLOITATION

SC7/5740

Akademiya nauk SSSR. Institut mineralogii, geohimii i kristallogimii redkikh elementov

Voprosy mineralogii, geohimii i geneticheskogo razvitiya redkikh elementov
(Problems in Mineralogy, Geochemistry, and Deposit Formation of Rare Elements)
Moscow, Izd-vo AN SSSR, 1960. 253 p. (Series: Itogi Nauki, vyp. 4) Errata
printed on the inside of back cover. 2,200 copies printed.

Chief Ed.: K. A. Vlasov, Corresponding Member, Academy of Sciences USSR;
Resp. Ed.: V. V. Lyakhovich; Ed. of Publishing House: L. S. Tarusov;
Tech. Ed.: P. S. Kashina.

PURPOSE: This book is intended for geologists, mineralogists, and petrographers.

COVERAGE: This is a collection of 25 articles on the formation, geochemistry,
mineralogy, petrography, and geochemistry of deposits of rare elements in
Siberia and [Soviet] Central Asia. The distribution and characteristics of
rare elements found in these areas as well as some quantitative and qualita-
tive methods of investigating the rocks and minerals in which they are found,

Card 1/6

Problems in Mineralogy (Cont.)

CC7/5740

or with which they are associated, are discussed. Two articles present an economic investigation of the possibilities of industrial extraction and utilization of selenium, tellurium, and hafnium. No personalities are mentioned. Each article is accompanied by references.

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31

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Card 3/5

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ISV/5740

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Card 5/6

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235

Kaganovich, S. Ya. Niobium (Economic Survey)

246

AVAILABLE: Library of Congress

Card 6/6

JA/dm/mc
11-14-61

1. MERKULOV, M.D.; ZHUKOVA, A.V.

2. USSR (600)

4. Agricultural Machinery

7. New machines for preparing seeds and sowing peanuts, Engs. M.D. Merkulov, A.V. Zhukova, Sel'khozmashina no. 5, 1953.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953. Unclassified.

ZHUKOVA, A.V.

How to re-equip combines for the harvest of gold-of-pleasure
and mustard. Nauka i pered.op.v sel'khoz. 7 no.6:28-29 Je '57.
(MIRA 10:?)

1. Nauchnyy sotrudnik Vsesoyuznogo nauchno-issledovatel'skogo
instituta maslichnykh i efiromaslichnykh kul'tur.
(Gold-of-pleasure--Harvesting;) (Mustard--Harvesting)

ZHUKOVA, D.Ya.; FILICHEVA, T.B.

Determination of dyestuff concentration in colored mother liquor and in dyed viscose. Khim.volok. no.5:64-67 '62.
(MIRA 15:11)

1. Klinskiy kombinat iskusstvennogo i sinteticheskogo volokna.

(Dyes and dyeing—Rayon)

FINKEL'SHTEYN, A.I.; ZHUKOVA, G.A.

Photocolorimetric determination of small amounts of cyanates.
Zav. lab. 30 no.8:943 '64. (MIRA 18:3)

1. Dzerzhinskiy filial Gosudarstvennogo nauchno-issledovatel'skogo
i proyektnogo instituta azotnoy promyshlennosti i produktov
organicheskogo sinteza.

ZHUKOVA, G.F.; MAKSIMOV, Ye.V., nauchnyy rukovoditel' raboty, kand. geograf.
nauk

Some results of meteorological observations in the highland of
the Kirghiz Alatau. Uch. zap. Fed. inst. Gerts. 239:153-159 '64.
(MIRA 18:3)

MCZHAYEVA, L.V., kand. biolog. nauk, dotsent; ZHUKOVA, G.M., aspirant

Microscopic observation of mitochondria in plant cells. Izv.
TSKHA no.1:29-37 '63. (MIRA 16:7)

(Mitochondria) (Plant cells and tissues)

MOZHAYEVA, L.V.; ZHUKOVA, G.M.

Microscopic observations of the mitochondria in plant cells. Dokl.
AN SSSR 148 no.6:1415-1417 F '63. (MIRA 16:3)

1. Predstavleno akademikom A.L.Kursanovym.
(Mitochondria) (Plant cells and tissues)

BEKAURI, N.V.; BABENKO, Z.I.; ZHUKOVA, G.N.; MOISEYEVA, Ye.I.

Effect of an interruption of the central pathways of the sensory innervation of the eye on the secretory activity of the ciliary body. Fiziol.zhur. 51 no.3:325-329 Mr '65.

(MIRA 18:5)

1. Laboratoriya fiziologii vegetativnoy nervnoy sistemy i nervnoy trofiki Instituta fiziologii imeni Pavlova AN SSSR, Leningrad.

ZHUKOVA, G.P.; LEONTOVICH, T.A.

Characteristics of the neuronal structure and topography of the
reticular formation in Carnivora. Zhur.vys.nerv.deiat 14 no.1:
124-147 Ja-F '64. (MIRA 17:6)

1. Laboratoriya neirohistologii Instituta mosga AMN SSSR.

ZHUKOVA, G.P. (Moskva, d-315, 1-y Baltiyskiy per., 3/25, kv.22)

Characteristics of the structure of gemmules in the spine and
medulla oblongata. Arkh. anat. gist. i embr. 41 no.7:58-64 J1 '61.
(MIRA 15:2)

1. Laboratoriya nevrogistologii (zav. - prof. G.I.Polyakov) Instituta
mozga AMN SSSR.
(SPINE INNERVATION) (MEDULLA OBLONGATA INNERVATION)

MOZHAYEVA, L.V., dotsent, kand. biologicheskikh nauk; ZHUKOVA, G.M.,
aspirantka

Plant mitochondria and their participation in the absorption of
water by roots. Izv. TSKHA no.3:87-97 '64.

(MIRA 17:11)

1. Kafedra fiziologii rasteniy Moskovskoy sel'skokhozyaystvennoy
akademii imeni Timiryazeva.

LEONTOVICH T. A. and ZHUKOVA G. P. (Moscow, USSR)

"The topography of the reticular formation in the brain
and spinal cord of carnivores"

Report submitted to the 7th International Congress of Neurology
Rome, Italy, 10-15 Sep 61

ZHUKOVA, G.P. (Moskva, D-315, 1-y Baltiyskiy per., 3/25, kv.22)

Some data on synapses in the spinal cord and medulla oblongata.
Arkh. anat. i embr. 39 no. 12:72-80 '60. (MIRA 14:2)

1. Laboratoriya nevrogistologii (zav. - prof. G.I. Polyakov)
Instituta mozga AMN SSSR.
(SPINAL CORD) (MEDULLA OBLONGATA)

ZHUKOVA, G. S.

Cand Biol Sci

Sci Res Inst of Potato Culture

"Checkrow-hill method of planting and sowing cultivated crops."

SOURCE: Zat. v shkole, No 1, pp 21-29, Jan/Feb 54

ZHUKOVA, G. S., kandidat biologicheskikh nauk.

Fertilizing the soil and treating it for spring sowing. Mat. v shkole
no.2:54-57 Mr-Ap '56. (MLRA 9:7)

1. Nauchno-issledovatel'skiy institut kartofel'nogo khozyaystva.
(Tillage) (Fertilizers and manures)

USSR / Cultivated Plants. Potato. Vegetables. Melons. M-4

Abs Jour: Ref Zhur-Biol., 1958, No 16, 72958.

Author : Zhukova, G.S.

Inst : Not Given.

Title : Results of Scientific Investigations on Planting
Depths.

Orig Pub: Kartofel', 1957, No 2, 59-63.

Abstract: Generalized data of many experimental establishments on the problem of planting depth of potatoes in different soil-climatic zones. For non-chernozem belts, according to a majority of experiments, the best results were obtained by laying the tubers in at 5, 6, 7 and 8 cm. It is proposed to review the problem of planting depth of potatoes in the non-chernozem zone by conducting experiments on

Card 1/2

51

ACCESSION NR: AP4034716

S/0064/64/000/004/0307/0310

AUTHOR: Khitrov, V. A.; Zedorozhnyy, V. P.; Smol'yaninov, I. S.; Zhukova, G. P.;
Dugin, N. A.; Konyayev, B. Ya.

TITLE: Use of bottoms from SK production as acid corrosion inhibitors.

SOURCE: Khimicheskaya promyshlennost', no. 4, 1964, 307-311

TOPIC TAGS: corrosion inhibitor, rubber production byproduct, still bottom, SK
rubber production, saturated alcohol, unsaturated alcohol, saturated hydrocarbon,
unsaturated hydrocarbon, unpolymerizable hydrocarbon, acid corrosion inhibitor,
inhibition mechanism, chemosorptionABSTRACT: The effectiveness of various cuts of still bottoms from rubber production as acid corrosion inhibitors for steels and copper was investigated. Three mixtures were examined: (1) foam reagents (PR) obtained from still bottoms remaining after distillation of technical butanol and comprising 25-35% saturated and unsaturated C₆ and C₈ alcohols, 3-5% butanol, 25-30% hydrocarbons, 30-35% heavy ends and traces of phenols and aldehydes; (2) still bottoms (KO) comprising low boiling saturated and unsaturated hydrocarbons separated from divinyl (35-45C

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ACCESSION NR: AP4034716

fraction contained to 40% amylene and piperazine; 65-80C fraction contained to 70% hexylene and hexadiene and small amounts of benzene, toluene, hexene; (3) motor fuel (MT) comprising a mixture of unpolymerisable hydrocarbons from washed still bottoms. The corrosion inhibiting effects of these products were tested at 0-80C as follows: PR, corrosion of low carbon steel 08 in 1 and 7N HCl and H₂SO₄; PR and KO, corrosion of stainless steel 1Kh18N9T in 1 and 7N HCl, and PR, KO and MT, corrosion of copper in 3N HNO₃. PR effectively retarded corrosion of steel in H₂SO₄ and HCl and of copper in HNO₃. Addition of 0.1 wt.% KI increased the effectiveness (at 80C, by over 2000 times). 2.5% PR plus 0.5% sodium arsenite almost completely prevented corrosion of 08 steel at 80C in 1N HCl. PR almost prevented corrosion of the stainless steel in 1N HCl and retarded corrosion in 3N HCl; corrosion in 7N HCl was very rapid after 6-7 hours. It is suggested the inhibition mechanism involves chemosorption of the PR components on the metal surface. PR and KO inhibited corrosion of copper in HNO₃ below 20C; MT was not especially effective. Orig. art. has: 3 figures and 2 tables.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

Card 2/3

ACCESSION NR: AP4034716

SUB CODE: MT, OC

NO REF Sov: 008

OTHER: 000

Card

3/3

ZHUKOVA, G.P.

Characteristics of neuronal structure and interneuronal connections in the brain stem and spinal cord and their functional significance in carnivora. Zhur. vys. nerv. deiat. 14, no. 4:714-725 J1-Ag '64. (MIRA 17:12)

1. Institute of Brain, U.S.S.R. Academy of Medical Sciences, Moscow.

ZHUKOVA, G.P.; LEONTOVICH, T.A.; SAVICH, K.V.

Differentiation of neurons of the cerebral hemispheres in mammals.
Arkh.anat.gist.i embr. 31 no.1:3-14 Ja-Mr '54. (MLBA 7:4)

1. Iz Instituta mozga Ministerstva zdravookhraneniya SSSR (direktor -
deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR professor S.A.
Sarkisov).

(Brain)

ZHUKOVA, G.P. (Moskva, B-14, 2-ya Boyevskaya, d. 6, kv. 11)

Neuronal structure of the spinal cord [with summary in English].
Arkh.anat.gist. i embr. 35 no.6:43-51 N-D '58. (MIRA 12:1)

1. Iz laboratorii nevrogistologii (sav. - prof. G.I. Polyakov)
Instituta mozga AMN SSSR.
(SPINAL CORD, anat. & histol.
neuronal structure (Rus))

ZHUKOVA, G. P.; LEOMTOVICH, T. D. (Moskva)

Ob osobennostyakh struktury i suyazey retikulyarnoy formatsii

report submitted for the First Moscow Conference on Reticular Formation,
Moscow, 22-26 March 1960.

ZHUKOVA, G.P.; KHITROV, V.A.

Kinetics of the self-dissolution of 1Kh18N9T stainless
steel in hydrochloric acid solutions. Izv. Vor.gos.ped.
inst. 47:67-77 '64. (MIRA 18:11)

ZHUKOVA, G.P.

Neural structure of the vestibular nuclei in Carnivora. Arkh. anat.,
gist. i embr. 49 no.7:65-75 Jl '65.

(MIRA 18:10)

1, Laboratoriya nevrogistologii (zav. - prof. G.I. Polyakov)
Instituta mozga AMN SSSR, Moskva.

~~ZHUKOVA, G. V.~~

Qualitative composition of the plastid pigment complex of
the green embryos in horse beans. Bot. zhur. 48 no.9:1380-
1382 S '63. (MIRA 16:11)

I. Botanicheskiy institut imeni V.L. Komarova AN SSSR,
Leningrad.

IOFFE, M.D.; ZHUKOVA, G.Ya.

Culture of isolated angiosperm embryos in an artificial medium.
Bot. zhur. 50 no.8:1157-1182 Ag '65. (MIRA 18:10)

1. Botanicheskiy institut imeni V.L. Komarova AN SSSR, Leningrad.

ZHUKOVA, G.Ya.

Qualitative composition of the pigment complex of plastids
in the green embryos of *Vicia faba* L.; qualitative composition
of xanthophylls. Bot. zhur. 50 no.11:1601-1602 N '65.

(MIRA 19:1)

1. Botanicheskiy institut imeni V.L.Komarova AN SSSR, Leningrad.
Submitted September 18, 1964.

ZHUKOVA, I. A.

Technology

Lenin-Stalin plan for the electrification of U.S.S.R. and establishment of material-technical base of communism, Stalingrad, 1951.

Monthly List of Russian Accessions, Library of Congress, December 1952. UNCLASSIFIED

KIRILLIN, V.A.; SHEYNOLIN, A.Ye.; CHEKHOVSKOY, V.Ya.; ZHIKOVA, I.A.

Experimental determination of the enthalpy of niobium in the
temperature range 600-2600°K. Teplofiz. vys. temp. 3 no.3:
395-400 My-Je '65. (MIRA 18.8)

1. Nauchno-issledovatel'skiy institut vysokikh temperatur, Moskva.

KIRILLIN, V. A.; SHEYNDLIN, A. Ye.; CHEKHOVSKIY, V. Ya.; ZHUKOVA, I. A.

"Thermodynamic properties of niobium in the temperature range from 0°K to the melting point, 2740°K."

report submitted for 3rd Symp on Thermophysical Properties, Purdue Univ, Lafayette, Ind., 22-25 Mar 65.

CHEKHOVSKOY, V. Ya.; KIRILLIN, V. A.; SHEYNDLIN, A. Ye.; ZHUKOVA, I. A.

"Thermodynamic properties of niobium in the temperature range from 0°C to the melting point, 2740°C."

paper accepted for presentation at 3rd Symp on Thermophysical Properties,
Lafayette, Ind, 22-26 Mar 65.

Inst of High Temperatures, Moscow.

L 8991-66 ENT(1)/ENT(e)/ENT(m)/ETC/EPF(n)-2/ENG(n)/EXP(t)/EPK(k)/EXP(s)/EXP(b)
 ACC NR: AP5016695 EWA(h)/ETC(m) SOURCE CODE: UR/0294/61/003/003/0395/0400 115

AUTHOR: Kirillin, V. A.; Sheyndlin, A. Ye.; Chakhovskoy, V. Ya.; Zhukova, I. A. B
 44,55 44,55 44,55

ORG: Scientific Research Institute of High Temperatures (Nauchno-issledovatel'skiy
 institut vysokikh temperatur) 44,55

TITLE: Experimental determination of the enthalpy of niobium in the 600 to 2600°K
 temperature range 16 44,55 21

SOURCE: Teplofizika vysokikh temperatur, v. 3, no. 3, 1965, 395-400 21,44,55

TOPIC TAGS: enthalpy, high temperature metal, powder metallurgy, heat capacity

ABSTRACT: The method of mixing is used to determine the enthalpy of niobium in the temperature range of 582°K to 2587°K. The calorimeter and oven used in the experiment were placed in a vacuum chamber and it is shown that results obtained at 10^{-2} to 10^{-3} mm Hg pressure agree with those obtained in an argon atmosphere. The measurements were made on samples produced by powder metallurgy and electric arc methods. No difference in the results was found. A detailed description of measurements which were necessary to assure minimum error is presented. The effect of vacancies at high temperatures was observed and its effect on the accuracy is considered. The results are presented in graphical and table form. In addition to the enthalpy measurement, the heat capacity was determined in a temperature range 273.15°K to 2740°K. Orig. art.

UDC: 536.722:46.892

Card 1/2

L 8991-66

ACC NR: AP5016695

has: 1 figure, 4 tables, 2 formulas.

SUB CODE: 11,20/ SUBM DATE: 03Oct64/ ORIG REF: 010/ OTH REF: 006

Card 2/2

(A)

L11902-66 EWT(1)/EWT(m)/EMP(n)/ETC(F)/EPF(n)-2 EWT(m)/T/EMP(i)/

ACC NR: AP6001909 EMP(b)/ETC(m) UR/0294/65/003/005/0860/0865

IJP(c) JD/JW/JG

AUTHOR: Kirillin, V.A.; Sheyndlin, A.Ye.; Chekhovskiy, V.Ye.; Zhukova,

I.A.

ORG: High Temperature Research Institute (Nauchno-issledovatel'skiy
institut vysokikh temperatur)

TITLE: Thermodynamic properties of niobium in the temperature interval

SOURCE: Teplofizika vysokikh temperatur, v.3, no.6, 1965, 860-865

TOPIC TAGS: niobium, thermodynamic property, enthalpy, entropy

ABSTRACT: The enthalpy and entropy of niobium in the temperature interval 0-2730K were calculated on the basis of averaged values of the actual heat capacity, using the following equations:

$$H_T - H_0 = \int c_p dT = \sum_{i=0}^n [1/2(c_{p,i+1} + c_{p,i})(T_{i+1} - T_i) + \Delta H_{i+1}], \quad (1)$$

$$S_T - S_0 = \int c_p d(\ln T) = \sum_{i=0}^n [1/2(c_{p,i+1} + c_{p,i})(\ln T_{i+1} - \ln T_i) + \Delta S_{i+1}], \quad (2)$$

UDO: 546.882:536.63+536.722+536.75+536.77

Card

1/2

L 11902-66

ACC NR: AP6001909

Here H_0 and S_0 are the enthalpy and entropy at 0°K. The following equations were used for calculation of the enthalpy and entropy in the temperature interval from 273.15 to 2740°K:

$$H_t - H_0 = 5,499T + 6,328 \cdot 10^{-4}T^2 + \\ + 1354 \cdot 10^3 \exp\left(-\frac{19,53 \cdot 10^3}{T}\right) - 440,7 \text{ kcal/mole-} \text{at.} \quad (5)$$

$$S_t - S_0 = 12,662 \lg T + 12,650 \cdot 10^{-4}T + \\ + 69,35 \left(1 + \frac{19,53 \cdot 10^3}{T}\right) \exp\left(-\frac{19,53 \cdot 10^3}{T}\right) - 22,995. \quad (6)$$

The results of the calculations are presented in a table and in empirical equations. Orig. art. has: 7 formulas, 3 figures, and 1 table.

SUB CODE: 11,20/ SUBM DATE: 05Nov64/ ORIG REF: 005/ OTH REF: 012

OC
Card 2/2

FREYDLIN, L.Kh.; ZHUKOVA, I.F.; MIRONOV, V.F.

Effect of the structure of unsaturated organosilicon compounds
on the rate of their hydrogenation. Izv. AN SSSR. Otd.khim.nauk
no.7:1269-1274 Jl '61. (MIRA 14:7)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.
(Silicon organic compounds) (Hydrogenation)

L 22836-66 EWT(d)/EWT(l)/EWT(m)/EPF(n)-2/T/EPF(t) JIV/HW/JG/3d
ACC NR: AP6003752 SOURCE CODE: UH/0181/66/008/001/0009/0012

AUTHOR: Chekhovskoy, V. Ye.; Zhukova, I. A.

ORG: Scientific Research Institute of High Temperatures, Moscow (Nauchno-
issledovatel'skiy institut vysokikh temperatur)

TITLE: Energy of formation and concentration of vacancies in niobium, measured by
the mixing method

SOURCE: Fizika tverdogo tela, v. 8, no. 1, 1966, 9-12

TOPIC TAGS: niobium, crystal vacancy, enthalpy, specific heat, crystal impurity,
temperature dependence

ABSTRACT: In view of the fact that earlier data on niobium were obtained by the
modulation method, whereas the mixing method is most widely used at present, the
authors have obtained experimental data on the enthalpy of niobium in the tempera-
ture interval 600-2600K and determined from these data the energy of vacancy pro-
duction and the vacancy concentrations in niobium at high temperatures. The en-
thalpy was measured with a bulk calorimeter with isothermal shell. The samples
used were 99.81 and 99.47% pure at lower temperatures, and even purer at higher
temperatures. The procedures used for the tests and for the data reduction are
briefly described. The temperature dependence of the specific heat at constant

Card 1/2

L 22836-66

ACC NR: AP6003752

pressure was found to satisfy the formula $C_p = 5.672 + 6.328 \times 10^{-4} T$ (cal-g-at-deg) + $[136 \times 10^4 / (T - 273.15)] \exp(-19.6 \times 10^3 / T)$. The energy of vacancy production was found to be 39 kcal/g-at, and the vacancy concentration was found to be $C = \exp(S/R) \exp(-U/RT) = 35 \exp(-3900/RT)$, with accuracy $\pm(15\text{--}20\%)$. The differences from results obtained by the modulation method are attributed to the influence of impurities. Orig. art. has: 3 figures and 6 formulas.

SUB CODE: 20111 SUBM DATE: 27May65/ ORIG REF: 009/ OTH REF: 004

Card 2/2 1

5 (3)

AUTHORS:

Freydlin, L. Kh., Balandin, A. A.,
Zhukova, I. F., Yakovlev, I. P.

SOV/62-59-9-20/40

TITLE:

Investigation of the Selective Effect of Catalysts. Communication 3. Hydration of Isoprene on a Skeleton Nickel Catalyst

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk,
1959, Nr 9, pp 1640 - 1645 (USSR)

ABSTRACT:

The hydration of isoprene on a skeleton nickel catalyst was investigated without (Fig 1) and with the addition of pyridine (Fig 2), and under pressure. The step-by-step hydration of the isoprene was established by determining the diene content in the catalyst before and after the consumption of 1 mol of hydrogen. After consumption of 1 mol of H no diene could be detected in the catalyst, which confirms the stepwise hydration. The diene was determined according to B. N. Afanasyev (Ref 6) or A. Baeyer (Ref 7). The authors found that the step-by-step hydration occurs as well with as without pyridine and that at experiments with small quantities of pyridine the reaction proceeds only to the formation of monoolefines. The influence of the quantity pyridine/catalyst surface and the influence isoprene/catalyst surface (Tables 3,4) was investigated concerning Ni + pyridine

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and found that an excess of pyridine hinders the isoprene hydration. The analysis of the reaction products of the Ni + pyridine experiment was carried out with the Raman spectrum. The two isomer substances 2-methylbutane-1 and 2-methylbutane-2 were present in the catalyzate. At variations of the pressure the selective effect of pyridine remained up to a pressure of 60 atm. Quinoline has the same effect as pyridine. There are 2 figures, 5 tables, and 9 references, 6 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskogo of the Academy of Sciences, USSR)

SUBMITTED: December 20, 1957

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5.1190

5(4)
AUTHORS:Krylov, V.D., Freydl, L.Kh.,
Zhukova, I.F.

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SOV/76-33-11-32/47

TITLE:

Investigation of the Influence of Water Vapor on the Activity
and Structure of the Skeleton Nickel Catalyst

PERIODICAL:

Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 11, pp 2559-2563
(USSR)

ABSTRACT:

The treatment of a skeleton nickel catalyst with water vapor under pressure caused already at low temperatures a decrease in activity. It was assumed (Ref 3) that the decrease in activity is caused by a recrystallization of the catalyst. Therefore the authors investigated the fine-crystalline structure and catalytic activity of skeleton nickel (treated with water vapor under pressure), the structure and activity of nickel (reduced from NiO) and the structure of NiO itself. The fine-crystalline structure was examined according to the harmonic analysis of the interference lines in x-ray pictures and according to the integral semi-width of the lines. The latter were determined with an x-ray diffractometer type URS-50I. The size of the crystal aggregate was determined with the equation of Selyakov-Scherrer. The NiO obtained by

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oxidation of the skeleton nickel, was treated under pressure 250, 215, 200, 130 and 150°C with water vapor (Table), subsequently reduced with hydrogen and the activity was investigated at the hydrogenation of vinyl phenyl ether in 96% ethanol at 20°C. The irreversible decrease in the catalyst activity observed is not caused by the growth of the crystal aggregate, but seems to be due to an additional aggregation (with decrease in the active catalyst surface) of the aggregate. Experiments with a water vapor treatment of the skeleton nickel and subsequent checking of the catalytic activity showed that the decrease depends very much on the pressure at the water vapor treatment (Fig 2). A strong growth of the crystal aggregate (almost to the recrystallization) was observed. At a treatment of the catalyst with a mixture of water vapor - carbon dioxide, no recrystallization could be observed and a further hydrogen treatment of the catalyst caused a noticeable recovery of the catalytic activity. A nitrogen treatment under pressure of the skeleton nickel increased the aggregate of the catalyst to a small degree ✓

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while the catalytic activity was completely restored by a
treatment with hydrogen. There are 3 figures, 1 table, and
5 references, 3 of which are Soviet.

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5(3)

SOV/20-124-3-30/67

AUTHORS: Freydl, L. Kh., Balandin, A. A., Academician, Zhukova, I.F.

TITLE: The Selective Hydrogenation of the Acetylene Bond in Butine-2-Diol-1,4 Into the Ethylene Bond on a Nickel Catalyst
(Selektivnoye gidrirovaniye atsetilenovoy svyazi butin-2-diola-1,4 v etilenovyyu na niklevom katalizatore)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 3, pp 598-601
(USSR)

ABSTRACT: It is a well-known fact that, in the presence of pyridine (or quinoline), acetylene hydrocarbons are selectively hydrogenated into ethylene hydrocarbons on a skeletal nickel catalyst. Two experiments were carried out: (1) at normal pressure, 20°C, and strong shaking; (2) at increased pressure, in a rotating autoclave. Ethanol, methanol, dioxane, and dimethyl formamide were used as solvents. In ethanol or methanol only, butinediol is quickly hydrogenated into butanediol. However, the hydrogen absorption curve points to a gradual hydrogenation. In dioxane the reaction occurs more slowly. After the addition of pyridine, the reaction starts to become selective, the affiliation of the second hydrogen mol is

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